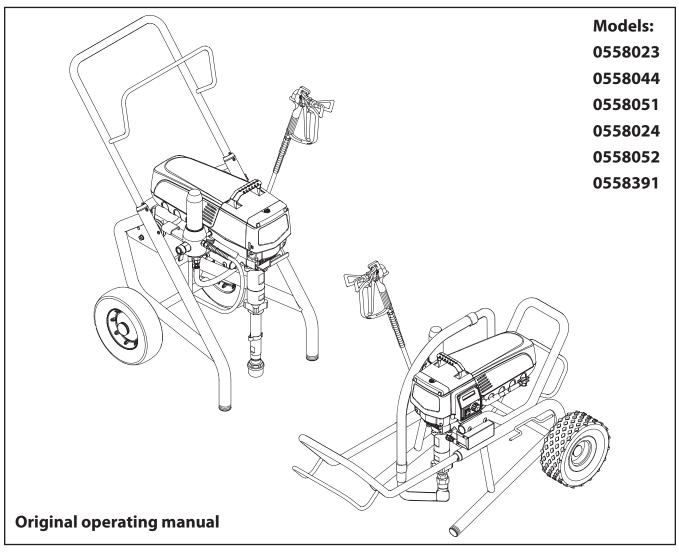


**Operating manual** 



# ProSpray 3.29 • 3.31

# **Airless high-pressure spraying unit**



# ProSpray 3.29 • 3.31



# Warning!

## Attention: Danger of injury by injection! Airless units develop extremely high spraying pressures.





Never put your fingers, hands or any other parts of the body into the spray jet!

Never point the spray gun at yourself, other persons or animals. Never use the spray gun without safety guard.

Do not treat a spraying injury as a harmless cut. In case of injury to the skin through coating materials or solvents, consult a doctor immediately for quick and expert treatment. Inform the doctor about the coating material or solvent used.



# The operating instructions state that the following points must always be observed before starting up:

- 1. Faulty units must not be used.
- 2. Secure WAGNER spray gun using the safety catch on the trigger.
- 3. Ensure that the unit is properly earthed.
- 4. Check allowable operating pressure of high-pressure hose and spray gun.
- 5. Check all connections for leaks.



The instructions regarding regular cleaning and maintenance of the unit must be strictly observed.

Before any work is done on the unit or for every break in work the following rules must be observed:

- 1. Release the pressure from spray gun and hose.
- 2. Secure the WAGNER spray gun using the safety catch on the trigger.
- 3. Switch off unit.

# Be safety conscious!

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## 1. Safety regulations for Airless spraying

## 1.1 Explanation of symbols used

This manual contains information that must be read and understood before using the equipment. When you come to an area that has one of the following symbols, pay particular attention and make certain to heed the safeguard.

	This symbol indicates a potential hazard that may cause serious injury or loss of life. Important safety information will follow.
Attention	This symbol indicates a potential hazard to you or to the equipment. Important information that tells how to prevent damage to the equipment or how to avoid causes of minor injuries will follow.
	Danger of skin injection
	Danger of fire from solvent and paint fumes
	Danger of explosion from solvent, paint fumes and incompatible materials
	Danger of injury from inhalation of harmful vapors
i	Notes give important information which should be given special attention.



## HAZARD: INJECTION INJURY

Attention: Danger of injury by injection! A high pressure stream produced by this equipment can pierce the skin and underlying tissues, leading to serious injury and possible amputation.

Do not treat a spraying injury as a harmless cut. In case of injury to the skin through coating materials or solvents, consult a doctor immediately for quick and expert treatment. Inform the doctor about the coating material or solvent used.

## **PREVENTION:**

- NEVER aim the gun at any part of the body.
- NEVER allow any part of the body to touch the fluid stream. DO NOT allow body to touch a leak in the fluid hose.
- NEVER put your hand in front of the gun. Gloves will not provide protection against an injection injury.
- ALWAYS lock the gun trigger, shut the fluid pump off and release all pressure before servicing, cleaning the tip guard, changing tips, or leaving unattended. Pressure will not be released by turning off the engine. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure.
- ALWAYS keep tip guard in place while spraying. The tip guard provides some protection but is mainly a warning device.
- ALWAYS remove the spray tip before flushing or cleaning the system.
- NEVER use a spray gun without a working trigger lock and trigger guard in place.

 All accessories must be rated at or above the maximum operating pressure range of the sprayer. This includes spray tips, guns, extensions, and hose.



## HAZARD: HIGH PRESSURE HOSE

The paint hose can develop leaks from wear, kinking and abuse. A leak can inject material into the skin. Inspect the hose before each use.

## **PREVENTION:**

- High-pressure hoses must be checked thoroughly before they are used.
- Replace any damaged high-pressure hose immediately.
- Never repair defective high-pressure hoses yourself!
- Avoid sharp bends and folds: the smallest bending radius is about 20 cm.
- Do not drive over the high-pressure hose. Protect against sharp objects and edges.
- Never pull on the high-pressure hose to move the device.
- Do not twist the high-pressure hose.
- Do not put the high-pressure hose into solvents. Use only a wet cloth to wipe down the outside of the hose.
- Lay the high-pressure hose in such a way as to ensure that it cannot be tripped over.



Only use WAGNER original-high-pressure hoses in order to ensure functionality, safety and durability.



## HAZARD: EXPLOSION OR FIRE

Solvent and paint fumes can explode or ignite. Severe injury and/or property damage can occur.

## PREVENTION:

- Do not use materials with a flashpoint below 21° C (70° F). Flashpoint is the temperature at which a fluid can produce enough vapors to ignite.
- Do not use the unit in work places which are covered by the explosion protection regulations.
- Provide extensive exhaust and fresh air introduction to keep the air within the spray area free from accumulation of flammable vapors.
- Avoid all ignition sources such as static electricity sparks, electrical appliances, flames, pilot lights, hot objects, and sparks from connecting and disconnecting power cords or working light switches.
- Do not smoke in spray area.
- Place sprayer sufficient distance from the spray object in a well ventilated area (add more hose if necessary). Flammable vapors are often heavier than air. Floor area must be extremely well ventilated. The pump contains arcing parts that emit sparks and can ignite vapors.
- The equipment and objects in and around the spray area must be properly grounded to prevent static sparks.
- Use only conductive or earthed high pressure fluid hose. Gun must be earthed through hose connections.
- Power cord must be connected to a grounded circuit (electric units only).
- Always flush unit into separate metal container, at low pump pressure, with spray tip removed. Hold gun firmly against side of container to ground container and prevent static sparks.

- Follow material and solvent manufacturer's warnings and instructions. Be familiar with the coating material's MSDS sheet and technical information to ensure safe use.
- Use lowest possible pressure to flush equipment.
- When cleaning the unit with solvents, the solvent should never be sprayed or pumped back into a container with a small opening (bunghole). An explosive gas/air mixture can arise. The container must be earthed.

## HAZARD: HAZARDOUS VAPORS

Paints, solvents, and other materials can be harmful if inhaled or come in contact with body. Vapors can cause severe nausea, fainting, or poisoning.

## **PREVENTION:**

- Wear respiratory protection when spraying. Read all instructions supplied with the mask to be sure it will provide the necessary protection.
- All local regulations regarding protection against hazardous vapors must be observed.
- Wear protective eyewear.
- Protective clothing, gloves and possibly skin protection cream are necessary for the protection of the skin. Observe the regulations of the manufacturer concerning coating materials, solvents and cleaning agents in preparation, processing and cleaning units.



## HAZARD: GENERAL

This product can cause severe injury or property damage.

## **PREVENTION:**

- Follow all appropriate local, state, and national codes governing ventilation, fire prevention, and operation.
- Pulling the trigger causes a recoil force to the hand that is holding the spray gun. The recoil force of the spray gun is particularly powerful when the tip has been removed and a high pressure has been set on the airless pump. When cleaning without a spray tip, set the pressure control knob to the lowest pressure.
- Use only manufacturer authorized parts. User assumes all risks and liabilities when using parts that do not meet the minimum specifications and safety devices of the pump manufacturer.
- ALWAYS follow the material manufacturer's instructions for safe handling of paint and solvents.
- Clean up all material and solvent spills immediately to prevent slip hazard.
- Wear ear protection. This unit can produce noise levels above 85 dB(A).
- Never leave this equipment unattended. Keep away from children or anyone not familiar with the operation of airless equipment.
- Device weighs in excess of 36 kg. Three-person lift is required.
- Do not spray on windy days.
- The device and all related liquids (i.e. hydraulic oil) must be disposed of in an environmentally friendly way.

## 1.2 Electric Safety

Electric models must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having an earthing wire with an appropriate earthing plug. Connection to the mains only through a special feed point, e.g. through an error protection insallation with INF < 30 mA.



DANGER — Work or repairs at the electrical equipment may only be carried out by a skilled electrician. No liability is assumed for incorrect installation. Switch the unit off. Before all repair work, unplug the power plug from the outlet.

Danger of short-circuits caused by water ingressing into the electrical equipment. Never spray down the unit with high-pressure or high-pressure steam cleaners.

## Work or repairs at the electrical equipment:

These may only be carried out by a skilled electrician. No liability is assumed for incorrect installation.

# 1.3 Electrostatic charging (formation of sparks or flames)



Electrostatic charging of the unit may occur during spraying due to the flow speed of the coating material. These can cause sparks and flames upon discharge. The unit must therefore always be earthed via the electrical system. The unit must be connected to an appropriately-grounded safety outlet.

An electrostatic charging of spray guns and the high-pressure hose is discharged through the high-pressure hose. For this reason the electric resistance between the connections of the high-pressure hose must be equal to or lower than 1 M $\Omega$ .

(**GB**)

## 2. General view of application

## 2.1 Application

= Recommended

= Not-recommended

		Model						
Materials	Object Size	PS 3.21	PS 3.23	PS 3.25	PS 3.29	PS 3.31	PS 3.34	PS 3.39
Release agents, oils, undercoats, primers, fillers, synthetic resin-based paints, acrylic paints recommended nozzle size: FineFinish 0.008" - 0.014"	up to 200 m <sup>2</sup> 200 m <sup>2</sup> - 800 m <sup>2</sup> more than 800 m <sup>2</sup>							
Emulsion paints, latex paints recommended nozzle size: 0.017" - 0.027"	up to 200 m <sup>2</sup> 200 m <sup>2</sup> - 800 m <sup>2</sup> more than 800 m <sup>2</sup>							
Anti-corrosive agents, flame retardants, fabric adhesive recommended nozzle size: 0.021" - 0.031"	up to 200 m <sup>2</sup> 200 m <sup>2</sup> - 800 m <sup>2</sup> more than 800 m <sup>2</sup>							
Airless-scrapers recommended nozzle size: 0.027" - 0.039"	up to 200 m <sup>2</sup> 200 m <sup>2</sup> - 800 m <sup>2</sup> more than 800 m <sup>2</sup>							

## 2.2 Coating materials

## Processible coating materials



# Pay attention to the Airless quality of the coating materials to be processed.

Dilutable lacquers and paints or those containing solvents, twocomponent coating materials, dispersions, latex paints. No other materials should be used for spraying without WAGNER's approval.

## Filtering

Despite suction filter and insertion filter in the spray gun, filtering of the coating material is generally advisable.

Stir coating material before commencement of work.



Attention: Make sure, when stirring up with motordriven agitators that no air bubbles are stirred in. Air bubbles disturb when spraying and can, in fact, lead to interruption of operation.

## Viscosity

With this unit it is possible to process highly viscous coating materials of up to around 25.000 MPa·s.

If highly viscous coating materials cannot be taken in by suction, they must be diluted in accordance with the manufacturer's instructions.

## **Two-component coating material**

The appropriate processing time must be adhered to exactly. Within this time rinse through and clean the unit meticulously with the appropriate cleaning materials.

## Coating materials with sharp-edged additional materials

These have a strong wear and tear effect on valves, high-pressure hose, spray gun and tip. The durability of these parts cane be reduced appreciably through this.

## 3. Description of unit

## 3.1 Airless process

The main areas of application are thick layers of highly viscous coating material for large areas and a high consumption of material.

A piston pump takes in the coating material by suction and conveys it to the tip. Pressed through the tip at a pressure of up to a maximum of 221 bar (22,1 MPa), the coating material is atomised. This high pressure has the effect of micro fine atomisation of the coating material.

As no air is used in this process, it is described as an AIRLESS process.

This method of spraying has the advantages of finest atomisation, cloudless operation and a smooth, bubble-free surface. As well as these, the advantages of the speed of work and convenience must be mentioned.

## 3.2 Functioning of the unit

In the following there is a short description of the technical construction for better understanding of the function.

WAGNER ProSpray units are electrically driven high-pressure spraying units.

A gear unit transfers the driving force to a crankshaft. The crankshaft moves the pistons of the material feed pump up and down.

The inlet valve is opened automatically by the upwards movement of the piston. The outlet valve is opened when the piston moves downward.

The coating material flows under high pressure through the highpressure hose to the spray gun. When the coating material exits from the tip it atomizes.

The pressure regulator controls the volume and the operating pressure of the coating material.

## Description of unit

## 3.3 Legend for explanatory diagram ProSpray 3.29 / 3.31

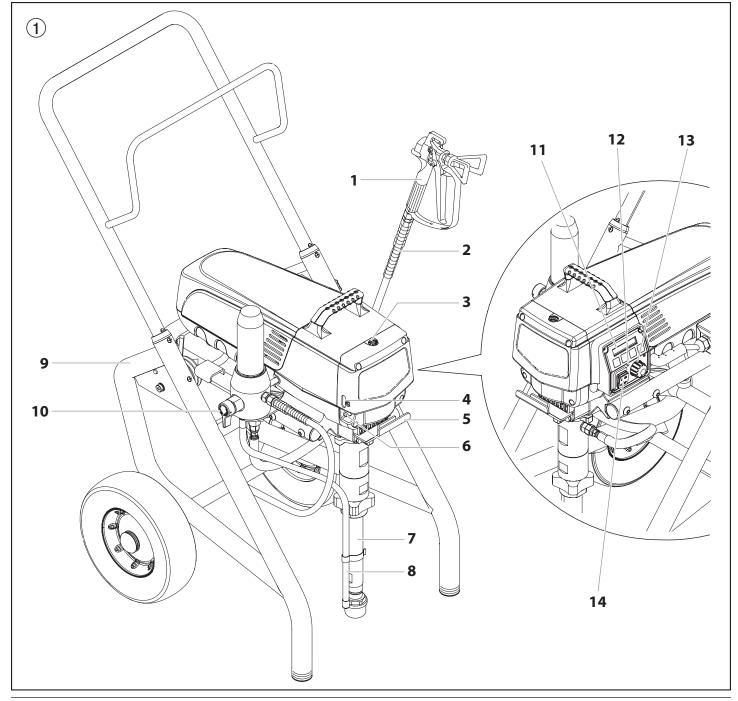
- 1 Spray gun
- 2 High-pressure hose
- 3 Oil cup for EasyGlide (EasyGlide prevents increased wear of the packings)
- 4 Oil level gauge
- 5 Pail hook
- 6 Oil button
- 7 Suction tube
- 8 Return hose

9 Cart

(GB)

- 11 Digital Electronic Spray Control (DESC)
- 12 Control panel indicators
- 13 Pressure control knob
- 14 ON/OFF switch

## 3.4 Explanatory diagram ProSpray 3.29 / 3.31



## 3.5 Technical data

Description of unit

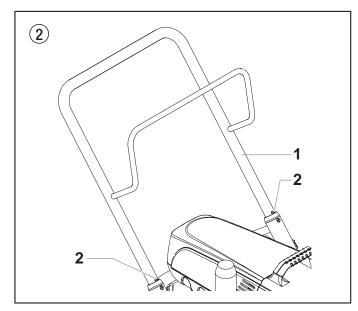
	ProSpray 3.29	ProSpray 3.31		
Voltage:	110-120 Volt, 50/60 Hz			
Max. current consumption:	13 A	15 A		
Power cord:	3 x 1.5 mm <sup>2</sup>	– 6 m or 4.6m		
Acceptance capacity:	1725 Watt	1840 Watt		
Max. operating pressure:	221 bar	(22.1 MPa)		
Volume flow at 12 MPa (120 bar) with water:	3,0 l/min	3,8 l/min		
Max tip size:	0.029 inch – 0.73 mm	0.032 inch – 0.81 mm		
Max. temperature of the coating material:	43°C			
Max viscosity:	25.00	00 mPa∙s		
Weight:	43	5.5 kg		
Special high-pressure hose:	DN 6 mm, 15 m, connection thread M 16 x 1.5			
Dimensions (L X W X H):	590 x 52	9 x 726 mm		
Max sound pressure level:	80 dB (A) *			

\* Place of measuring: 1 m in distance from the unit and 1.6 m above the floor, 12 MPa (120 bar) operating pressure, reverberant floor.

## 3.6 Transportation

## Pushing or pulling the unit

Pull out the handle (Fig. 2, Item 1) until it will come no further. Insert the handle – push the buttons (2) on the spars, and then push in the handle.



## 3.7 Transportation in vehicle

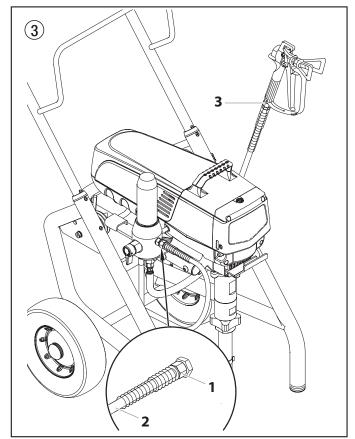
Secure the unit with a suitable fastening.

## 4. Starting operation

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# 4.1 High-pressure hose, spray gun and separating oil

- 1. Screw the high-pressure hose (2) to the coating material outlet (Fig. 3, Item 1).
- 2. Screw the spray gun (3) with the selected tip onto the high-pressure hose.
- 3. Tighten the union nuts at the high-pressure hoses firmly so that coating material does not leak.

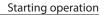


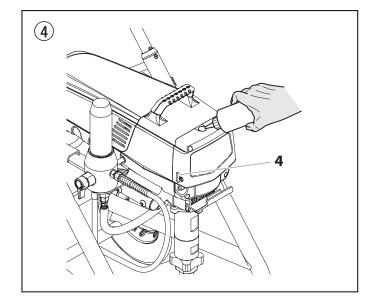
- 4. Remove the oil cup cap with a straight-slot screwdriver.
- 5. Fill the oil cup with EasyGlide (Fig. 4) until the oil gauge (4) is showing that it is full.



EasyGlide prevents increased wear and tear to the packings.

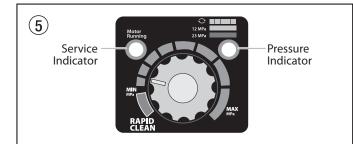
- 6. Replace oil cup cap.
- 7. Press oil button 2-5 times to prime the oiler. Press once for every eight hours of usage to lubricate the fluid section.





## 4.2 Control Panel Indicators

The following is a description of the control panel indicators.



## **Pressure Indicator**

The pressure indicator shows the current operating pressure of the sprayer. It has three different indications: blinking yellow, solid yellow, and solid green.

## **Blinking Yellow**

When the pressure indicator is blinking yellow, the sprayer is operating between 0 and 1.4 MPa (14 bar). A blinking yellow pressure indicator means:

- The sprayer is plugged in and turned "ON"
- The sprayer is at priming pressure (little or no pressure)
- It is safe to move the relief valve between positions
- It is safe to change or replace the spray tip



If the pressure indicator begins blinking yellow when the pressure control knob is set at a higher pressure and the relief valve is in the SPRAY position, either the spray tip is worn or the sprayer is in need of service/repair.

## Solid Yellow

When the pressure indicator is solid yellow, the sprayer is operating between 1.4 MPa (14 bar) and 12 MPa (120 bar). A solid yellow pressure indicator means:

 The sprayer is at the proper pressure setting for spraying stain, lacquer, varnish, and multi-colors

## Solid Green

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When the pressure indicator is solid green, the sprayer is operating between 12 MPa (120 bar) and 23 MPa (230 bar). A solid green pressure indicator means:

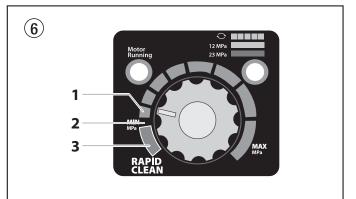
- The sprayer is at the proper pressure setting for spraying oilbased and latex house paints
- The sprayer is operating at peak performance at a high pressure setting
- If the pressure indicator goes to solid yellow when the pressure is set so that it starts at solid green, it indicates one of the following:
- a. **Tip Wear Indicator** when spraying with latex or at high pressure the solid yellow appears. This means the tip is worn and needs to be replaced.
- b. **Tip Too Large** when a tip that is too large for the sprayer is put in the gun, the pressure indicator will turn from solid green to solid yellow.
- c. **Fluid Section Wear** if a solid yellow pressure indicator appears when using a new tip and the pressure is set at maximum, service may be required (worn packings, worn piston, stuck valve, etc...).

## Service Indicator

The Service indicator is on when the motor is commanded to run. This indicator is used by service centers to troubleshoot motor problems.

## 4.3 Pressure control knob settings (Fig. 6)

- 1. Minimum pressure setting
- 2. Black zone no pressure generation
- 3. Blue zone pulsating pressure for cleaning



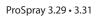
## 4.4 Connection to the mains network

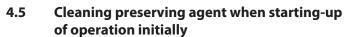


The unit must be connected to an appropriatelygrounded safety outlet.

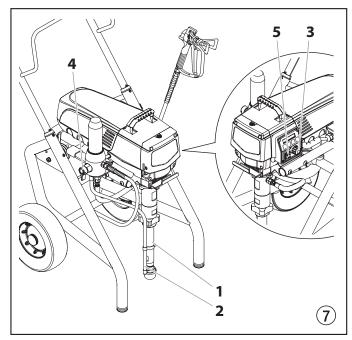
Before connecting the unit to the mains supply, ensure that the line voltage matches that specified on the unit's rating plate.

The connection must be equipped with a residual current protective device with INF  $\leq$  30 mA.





- 1. Immerse the suction tube (Fig. 7, Item 1) and return hose (2) into a container with a suitable cleaning agent.
- 2. Turn the pressure control knob counterclockwise (3) to minimum pressure.
- Open the relief valve (4), valve position PRIME (O circulation).
- 4. Switch the unit (5) ON.
- 5. Wait until the cleaning agent exudes from the return hose.
- 6. Close the relief valve, valve position SPRAY ( $^{>}\eta$  spray).
- 7. Pull the trigger of the spray gun.
- 8. Spray the cleaning agent from the unit into an open collecting container.



## 4.6 Taking the unit into operation with coating material

- 1. Immerse the suction tube (Fig. 7, Item 1) and return hose (2) into the coating material container.
- 2. Turn the pressure control knob counterclockwise (3) to minimum pressure.
- Open the relief valve (4), valve position PRIME (O circulation).
- 4. Switch the unit (5) ON.
- 5. Wait until the coating material exudes from the return hose.
- 6. Close the relief valve, valve position SPRAY ( $^{>}\eta$  spray).
- 7. Trigger the spray gun several times and spray into a collecting container until the coating material exits the spray gun without interruption.
- Increase the pressure by slowly turning up the pressure control knob.

Check the spray pattern and increase the pressure until the atomization is correct.

Always turn the pressure control knob to the lowest setting with good atomization.

9. The unit is ready to spray.

## 4.7 Digital Electronic Spray Control (DESC)

The Digital Electronic Spray Control (DESC) increases the functionality of the sprayer. It is installed directly below the pressure control knob on the control panel. It consists of a display and four function keys. The display shows various menu screens that allow the user to customize and monitor sprayer operation using the function keys.





## **Function Keys**

The function keys are numbered 1–4. Each key is labeled with an additional function as well.

#### #1/Menu Key

Pressing the #1 key scrolls through the available menu screens or performs a function described on the active menu screen.

#### #2/▲ Key

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Pressing the #2 key performs a function described on the active menu screen or increases a value.

## #3/**▼** Key

Pressing the #3 key performs a function described on the active menu screen or decrease a value.

## #4/Select Key

Pressing the #4 key selects the active menu screen or performs a function described on the active menu screen.

## **Menu Screens**

Several menu screens are available for the user to customize and monitor sprayer operation. They include Main Screen, Volume Pumped, Job Volume, Unit Serial #, Timers, Job Timers, Service Time, Security Code, Prime, and Rapid Clean.

#### Main Screen

The Main Screen is the default screen for the control system at sprayer startup.



Pressing the #2 key switches between PSI, Bar, and MPa units of measure. Press the #1 key to scroll through the remaining menu screens.



For sprayers equipped with an nine-language Digital Electronic Spray Control (DESC):

Pressing the #2 key at the Main Screen switches between PSI, Bar and MPa units of measure.

## **Volume Pumped Screen**

The Volume Pumped screen shows the MENU-1 total number of gallons or liters sprayed by the spraver.

To select the Volume Pumped screen, press the #4 key.

## **Job Volume Screen**

The Job Volume screen allows the user to reset a liter counter to track usage on specific jobs.

To select the Job Volume screen, press the #4 key.

JOB	VOLUME
MENU-1	SELECT-4

VOLUME PUMPED

GALLONS

IENU-1

TRES

SELECT-4

#### RESET MENIT-1

SELECT

XXXXXXXXXXX

#### **Unit Serial # Screen**

The Unit Serial # screen shows the sprayers serial number.

To select the Unit Serial # screen, press the #4 key.

#### **Timers Screen**

The Timers screen shows the total time the MENU-1 sprayer has been turned on as well as the total time the sprayer has been running (pumping).

To select the Timers screen, press the #4 key.

	<b>J</b> .	
ЛC	TIME	XXXX
RUI	N TIME	XXXX

TIMERS

SELECT

RESET-

RESET-3

JOB

MENU-1

JOB ON

IOB RUN

MENU-1

MENU-1

#### **Job Timers Screen**

The Job Timers screen allows the user to reset the "ON TIME" and "RUN TIME" to track time on specific jobs.

To select the Job Timers screen, press the #4 key. "JOB ON" screen will appear. Press #3 to reset. Press #1 to continue to "JOB RUN" screen. Press #3 to reset. Press #1 to scroll through the remaining menu screens.

#### Service Time Screen

The Service Time screen allows the user to set a service time interval (in hours). Below MENU-1

To set the service time, press the #2 (up)

the set time, the screens shows the current amount of hours on the sprayer since the last activation of the service timer. To select the Service Timer screen, press the #4 key.

SERVICE @ RUN HOURS

and/or the #3 (down) keys to the desired time (run hours will increase/decrease in increments of 25 for each time you press a key).

When the service time interval is set and met by the run hours, the display will show a "Service Required" screen. The pump will remain functional. To return to the Main Screen, press the #1 key. Doing so will reset the "Service @" and "Run Hours" displayed on the Service Screen back to 0.

#### **Security Code Screen**

The Security Code screen allows the user

SECURITY CODE MENU-1 CHANGE-2

to set a four digit security code to prevent unauthorized use of the sprayer. If a security code has been set, the control system display will ask for the code at startup. If the correct code is entered, the display will show the Main Screen and the sprayer will operate. If the wrong code is entered, the display will continue to ask for the correct code and the sprayer will be disabled. To set or change the security code, press the  $\frac{1}{2}$  key.



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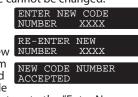
If the sprayer is new, no security code is set and the Main Screen will appear at startup. When setting a security code for the first time, the "Enter Old Code Number" screen will appear, and you will need to enter "1111".

Enter the old security code number to access the screen that allows the code

ENTER OLD CODE NUMBER

change. If the wrong code is entered, the display will continue to ask for the correct code and the security code cannot be changed.

Enter the new security code. Once the new code is entered, the display will re-entered for verification. If the same new NUMBER XXX code is re-entered, the display will confirm that the new code has been accepted and return to the Main Screen. If the new code



is re-entered incorrectly, the display will return to the "Enter New Code Number" screen and the process will repeat.

If you forget or misplace your security code, you can contact Wagner customer service for assistance.



the "Enter New Code Number" screen (this is the default code that leaves the sprayer unlocked). As a result, the Main Screen will appear at sprayer startup.

#### **Prime Screen**

The Prime screen appears when the pressure control knob is set at the "MIN"

#### **Rapid Clean Screen**

The Rapid Clean screen appears when the pressure control knob is set at the RAPID

RAPID CLEAN

PRIME

CLEAN position and the PRIME/SPRAY valve is in the PRIME position.



If there is no action at any menu screen for 30 seconds, the display will go back to the Main Screen.

ProSpray 3.29 • 3.31

setting.

SELECT

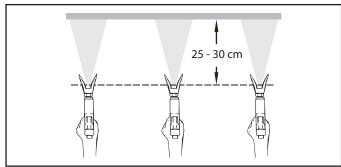
To inactivate the security function, enter "1111" at

## 5. Spraying technique

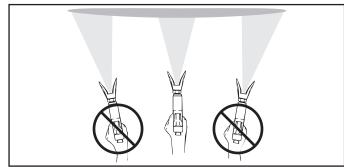


Injection hazard. Do not spray without the tip guard in place. NEVER trigger the gun unless the tip is completely turned to either the spray or the unclog position. ALWAYS engage the gun trigger lock before removing, replacing or cleaning tip.

The key to a good paint job is an even coating over the entire surface. Keep your arm moving at a constant speed and keep the spray gun at a constant distance from the surface. The best spraying distance is 25 to 30 cm between the spray tip and the surface.

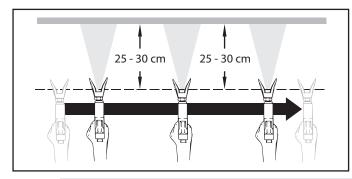


Keep the spray gun at right angles to the surface. This means moving your entire arm back and forth rather than just flexing your wrist.



Keep the spray gun perpendicular to the surface, otherwise one end of the pattern will be thicker than the other.

Trigger gun after starting the stroke. Release the trigger before ending the stroke. The spray gun should be moving when the trigger is pulled and released. Overlap each stroke by about 30%. This will ensure an even coating.



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If very sharp edges result or if there are streaks in the spray jet – increase the operating pressure or dilute the coating material.

## 6. Handling the high-pressure hose

The unit is equipped with a high-pressure hose specially suited for piston pumps.



Danger of injury through leaking high-pressure hose. Replace any damaged high-pressure hose immediately.

Never repair defective high-pressure hoses yourself!

The high-pressure hose is to be handled with care. Avoid sharp bends and folds: the smallest bending radius is about 20 cm. Do not drive over the high-pressure hose. Protect against sharp objects and edges.

Never pull on the high-pressure hose to move the device.

Make sure that the high-pressure hose cannot twist. This can be avoided by using a Wagner spray gun with a swivel joint and a hose system.



When using the high-pressure hose while working on scaffolding, it is best to always guide the hose along the outside of the scaffolding.



The risk of damage rises with the age of the highpressure hose. Wagner recommends replacing highpressure hoses after 6 years.



Use only WAGNER original-high-pressure hoses in order to ensure functionality, safety and durability.

## 7. Interruption of work

- 1. Open the relief valve, valve position PRIME (O circulation).
- 2. Switch the unit OFF.
- 3. Turn the pressure control knob counterclockwise to minimum pressure.
- 4. Pull the trigger of the spray gun in order to release the pressure from the high-pressure hose and spray gun.
- 5. Secure the spray gun, refer to the operating manual of the spray gun.
- If a standard tip is to be cleaned, see Page 19, Section 12.2. If a non-standard tip is installed, proceed according to the relevant operating manual.
- 7. Depending on the model, leave the suction tube or the suction hose and return hose immersed in the coating material or swivel or immerse it into a corresponding cleaning agent.



If fast-drying or two-component coating material is used, ensure that the unit is rinsed with a suitable cleaning agent within the processing time.

## 8. Cleaning the unit (shutting down)

A clean state is the best method of ensuring operation without problems. After you have finished spraying, clean the unit. Under no circumstances may any remaining coating material dry and harden in the unit.

The cleaning agent used for cleaning (only with an ignition point above  $21 \,^{\circ}$ C) must be suitable for the coating material used.

• Secure the spray gun, refer to the operating manual of the spray gun.

Clean and remove tip.

For a standard tip, refer to Page 19, Section 12.2.

If a non-standard tip is installed, proceed according to the relevant operating manual.

- 1. Remove suction hose from the coating material.
- 2. Close the relief valve, valve position SPRAY ( $^{>}\eta$  spray).
- 3. Switch the unit ON.
- Pull the trigger of the spray gun in order to pump the remaining coating material from the suction hose, highpressure hose and the spray gun into an open container.



The container must be earthed in case of coating materials which contain solvents.



Caution! Do not pump or spray into a container with a small opening (bunghole)! Refer to the safety regulations.

- 5. Immerse suction hose with return hose into a container with a suitable cleaning agent.
- 6. Turn the pressure control knob into the blue zone pulsating pressure for unit cleaning.
- Open the relief valve, valve position PRIME (O circulation).
- 8. Pump a suitable cleaning agent in the circuit for a few minutes.
- 9. Close the relief valve, valve position SPRAY (<sup>\*</sup> spray).
- 10. Pull the trigger of the spray gun.
- 11. Pump the remaining cleaning agent into an open container until the unit is empty.
- 12. Switch the unit OFF.

## 8.1 Cleaning unit from outside



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First of all pull out mains plug from socket.



Danger of short circult through panetrating water! Never spray down the unit with high-pressure or high-pressure steam cleaners.



Do not put the high-pressure hose into solvents. Use only a wet cloth to wipe down the outside of the hose.

Wipe down unit externally with a cloth which has been immersed in a suitable cleaning agent.

## 8.2 Cleaning the high-pressure filter

Clean the filter cartridge regularly.

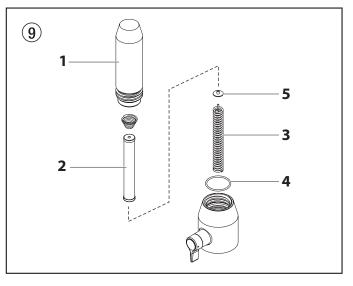
A soiled or clogged high-pressure filter can cause a poor spray pattern or a clogged tip.

- 1. Turn the pressure regulator knob into the black zone until it stops (no pressure).
- Open the relief valve, valve position PRIME (○ circulation).
- 3. Switch the unit OFF.



## Unplug the power plug from the outlet.

- 4. Unscrew the filter housing (Fig. 9, Item 1). with a strap wrench.
- 5. Pull the filter cartridge (2) from the bearing spring (3).
- 6. Clean all the parts with the corresponding cleaning agent. If necessary, replace the filter cartridge.
- 7. Check the O-ring (4), replace it if necessary.
- 8. Place the bearing ring (5) against the bearing spring (3). Slide the filter cartridge (2) over the bearing spring.
- 9. Screw in filter housing (1) and tighten it as far as possible with the strap wrench.





## 8.3 Cleaning Airless spray gun

- 1. Rinse Airless spray gun with an appropriate cleaning agent.
- 2. Clean tip thoroughly with appropriate cleaning agent so that no coating material residue remains.
- 3. Thoroughly clean the outside of the Airless spray gun.

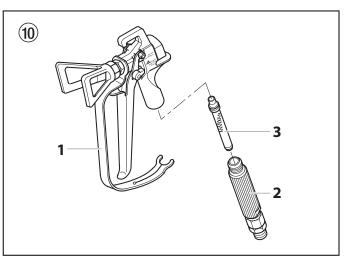
## Intake filter in Airless spray gun

## Disassembly (Fig. 10)

- 1. Pull protective guard (1) forward vigorously.
- 2. Screw grip (2) out of the gun housing. Remove intake filter (3).
- 3. Intake filter congested or defective replace.

## Assembly

- 1. Place intake filter (3) with the long cone into the gun housing.
- 2. Screw in grip (2) into the gun housing and tighten.
- 3. Slot in protective guard (1).



## 9. Remedy in case of faults

Туре	Type of malfunction		nalfunction Possible cause		Measures for eliminating the malfunction		
A.	Unit does not start	1.	No voltage applied.	1.	Check voltage supply.		
		2.	Pressure setting too low.	2.	Turn up pressure control knob.		
		3.	ON/OFF switch defective.	3.	Replace.		
B.	Unit does not draw in material	1.	Relief valve is set to SPRAY ( <sup>≫</sup> ¶ spray).	1.	Set relief valve to PRIME ( ${\mathfrak O}$ circulation).		
		2.	Filter projects over the fluid level and sucks air.	2.	Refill the coating material.		
		3.	Filter clogged.	3.	Clean or replace the filter.		
		4.	Suction hose/suction tube is loose, i.e. the unit is sucking in outside air.	4.	Clean connecting points. Tighten suction tube.		
C.	Unit draws in material, but the pressure does not build up	1.	Tip heavily worn.	1.	Replace		
		2.	Tip too large.	2.	For selection of a smaller tip, see Tip table on Page 20.		
		3.	Pressure setting too low.	3.	Turn pressure control knob clockwise to increase.		
		4.	Filter clogged.	4.	Clean or replace the filter.		
		5.	Coating material flows through the return hose when the relief valve is in the SPRAY (ँग spray) position.	5.	Remove and clean or replace relief valve.		
		6.	Packings sticky or worn.	6.	Remove and clean or replace packings.		
		7.	Valve balls worn.	7.	Remove and replace valve balls.		
		8.	Valve seats worn.	8.	Remove and replace valve seats.		

Туре	of malfunction	Possible cause	Measures for eliminating the malfunction
D.	Coating material exits at the top of	1. Upper packing is worn.	1. Remove and replace packing.
	the fluid section	2. Piston is worn.	2. Remove and replace piston.
E.	Increased pulsation at the spray gun	1. Incorrect high-pressure ho	<ul> <li>See type.</li> <li>1. Only use WAGNER original-high-pressure hoses in order to ensure functionality, safety and durability.</li> </ul>
		2. Tip worn or too large.	2. Replace tip.
		3. Pressure too high.	3. Turn pressure control knob to a lower number.
F.	Poor spray pattern	1. Tip is too large for the coat material which is to be spra	
		2. Pressure setting incorrect.	<ol><li>Turn pressure control knob until a satisfactory spraying pattern is achieved.</li></ol>
		3. Volume too low.	3. Clean or replace all filters.
		4. Coating material viscosity t	oo high. 4. Thin out according to the manufacturer's instructions.
G.	Unit loses power	1. Pressure setting too low.	1. Turn pressure control knob clockwise to increase.

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## **Digital Electronic Spray Control (DESC) Error** Messages

The following error message screens appear whenever the Digital Electronic Spray Control (DESC) detects a problem with the sprayer. Once a problem occurs and the error message appears, the sprayer will shut down.



Before proceeding, relieve any pressure remaining in the system (valve position  $\mathsf{PRIME}^{\bigcirc}$ ). Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

## **Check Transducer Screen**

The Check Transducer screen appears when the transducer has become authorized service center for repair.



disconnected or is defective. Take the sprayer to a Wagner

## **Check Motor Screen**

The Check Motor screen appears when the motor or motor sensor is defective. Take the sprayer to a Wagner authorized service center for repair.

The Low Voltage screen appears when the

## Low Voltage Screen

LOW VOLTAGE

CHECK

MOTOR

sprayer shuts down because of low input voltage. Check the power supply and correct the problem. Restart the sprayer.

#### **High Motor Temperature Screen**

HIGH MOTOR The High Motor Temperature screen TEMPERATURE appears when the temperature of the motor has risen too high. Take the sprayer to a Wagner authorized service center for repair.

#### **High Control Temperature Screen**

The High Control Temperature screen appears when the temperature of the

Digital Electronic Spray Control (DESC) has risen too high. Take the sprayer to a Wagner authorized service center for repair.

#### **High Mechanical Load**

The High Mechanical Load screen appears when the sprayer shuts down because of



HIGH CONTROL TEMPERATURE

high current or when the sprayer goes into current fold back mode. Take the sprayer to a Wagner authorized service center for repair.



## 10. Servicing

## 10.1 General servicing

Servicing of the unit should be carried out once annually by the WAGNER service.

- 1. Check high-pressure hoses, device connecting line and plug for damage.
- 2. Check the inlet valve, outlet valve and filter for wear.

## 10.2 High-pressure hose

Inspect the high-pressure hose visually for any notches or bulges, in particular at the transition in the fittings. It must be possible to turn the union nuts freely.



The risk of damage rises with the age of the highpressure hose. Wagner recommends replacing highpressure hoses after 6 years.

## 11. Repairs at the unit

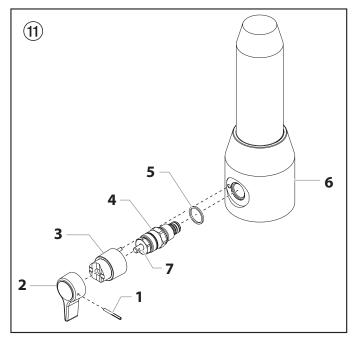


Switch the unit OFF.

Before all repair work: Unplug the power plug from the outlet.

## 11.1 Relief valve

- 1. Use a drift punch of 2 mm to remove the grooved pin (Fig. 11, Item 1) from the relief valve handle (2).
- 2. Remove the relief valve handle (2) and cam base (3).
- 3. Using a wrench, remove the valve housing (4).
- 4. Ensure that the seal (5) is seated correctly, then screw the new valve housing (4) completely into the filter block (6). Tighten securely with a wrench.
- 5. Align the cam base (3) with the hole in the filter block (6). Lubricate the cam base with grease and slide on the cam base.
- 6. Bring the hole in the valve shaft (7) and in the relief valve handle (2) into alignment.
- 7. Insert the grooved pin (1) to secure the relief valve handle in position.



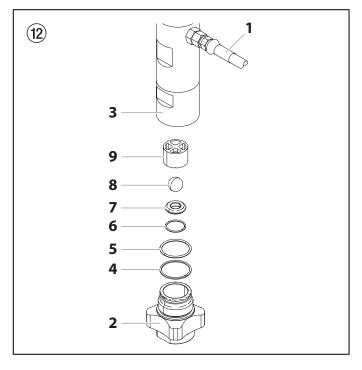
## 11.2 Inlet and outlet valve

1. Remove the four screws in the front cover and then remove the front cover.

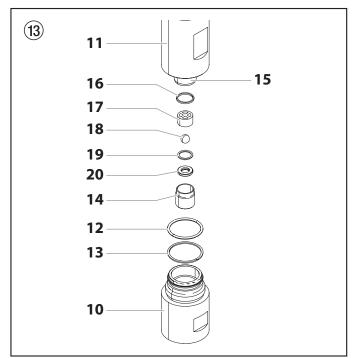


# Danger of crushing - do not reach with the fingers or tool between the moving parts.

- 2. Turn the pressure control knob to minimum pressure. The DESC screen should say "PRIME".
- 3. Press the #1 key on the DESC control panel. The "CREEP MODE" screen will now appear.
- 4. Slowly turn the pressure control knob clockwise to increase the pressure. The crankshaft/slider assembly will begin to move very slowly.
- 5. When it reaches the bottom, dead-center of its stroke, turn the pressure control knob back to minimum pressure. The crankshaft/slider assembly should stop.
- 6. Unplug the power plug from the outlet.
- 7. Pull off clamp on suction tube and remove return hose.
- 8. Unscrew the connection hose (Fig. 12, item 1) from the high-pressure filter.
- 9. Turn the knob on the side of the cart clockwise to unlock the cart. Tilt the cart backwards until it locks into place.
- 10. Loosen and unscrew inlet valve housing (2) from the lower housing (3) with light blows from a hammer or unscrew with an adjusting wrench.
- 11. Remove bearing ring (4), O-ring (5), O-ring (6), inlet valve seat (7), inlet valve ball (8) and upper ball guide (9).
- 12. Clean all the parts with the corresponding cleaning agent. Check the inlet valve housing (2), inlet valve seat (7) and inlet valve ball (8) for wear and replace the parts if necessary. If the worn inlet valve seat (7) is unused on one side, install it the other way around.
- Carry out installation in the reverse order. Lubricate O-ring (5) with machine grease and ensure proper seating in the inlet valve housing (2).



- 14. Unscrew lower housing (Fig. 13, Item 10) with adjusting wrench while holding the upper housing (11) securely with a second adjusting wrench.
- 15. Remove bearing ring (13) and O-ring (12).
- 16. Screw out outlet valve housing (14) from the piston (15) with 3/8 inch hexagon socket head wrench.
- 17. Remove the upper seal (16), upper ball guide (17), outlet valve ball (18), washer (19) and outlet valve seating (20).
- 18. Clean all the parts with the corresponding cleaning agent. Check outlet valve housing (14), outlet valve seat (20), outlet valve ball (18) and upper ball guide (17) for wear and replace parts if necessary. If the worn outlet valve seat (20) is unused on one side, install it the other way around.
- Carry out installation in the reverse order. Lubricate O-ring (12) with machine grease and ensure proper seating in the lower housing (10).



## 11.3 Packings

- 1. Remove inlet valve housing in accordance with the steps in Chapter 11.2, Page 16.
- 2. It is not necessary to remove the outlet valve.
- 3. Loosen lock nut (Fig. 14, Item 5) counterclockwise with light blows from a hammer.
- 4. Unscrew upper housing (6) counterclockwise from the gear unit housing.
- 5. Clamp upper housing (6) at the wrench surfaces vertically in a vice.



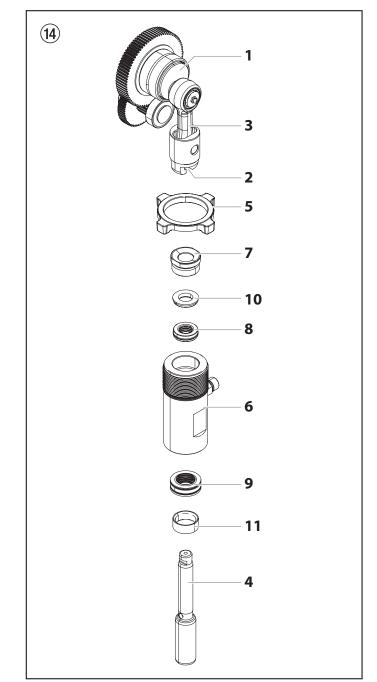
# Do not tighten vice excessively to prevent crushing.

- 6. Screw out threaded joint (7).
- Slide the piston rod (4) forward until the piston is out of the T-slot (2) on the slider assembly (3).

- 8. Push piston (4) downward out of the upper housing (6). Check piston for wear and replace if necessary.
- 9. Remove upper packing (8) and lower packing (9) from the upper housing (6).

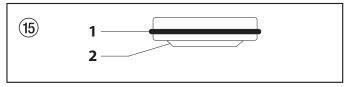


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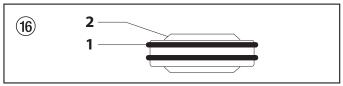


- 10. Remove the transportation devices from the upper and lower packings. (The transportation device from the upper packing is required for installation of the piston.)
- 11. Lubricate upper packing (8) and lower packing (9) with machine grease.

12. Insert upper packing (Fig. 15) with O-ring (1) and protruding lip (2) downward into the upper housing (6).



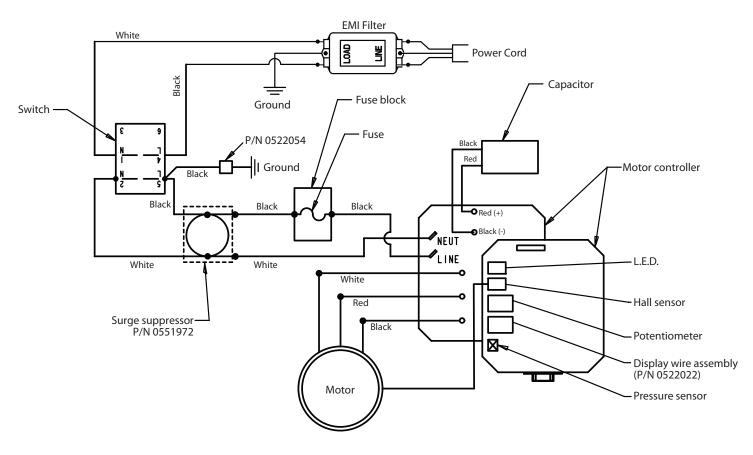
- 13. Place intermediate ring (Fig. 14, Item 10) on the upper packing (8).
- 14. Screw threaded joint (Fig. 14, Item 7) into the upper housing (6) and tighten to 34 41 Nm.
- 15. Insert lower packing (Fig. 16) in such a way that the side with the smaller distance between the O-ring (1) and the protruding lip (2) faces upward.



- 16. Move the lower packing to the end position using the installation tool.
- 17. Push installation tool (included in scope of delivery of the upper packing as a transportation device) for the piston (Fig. 14, Item 4) onto the piston from above.

## 11.4 ProSpray 3.29 / 3.31 connection diagram

- 18. Lubricate installation tool and piston (4) with machine grease.
- 19. Push piston (4) through the lower and upper packings until the upper end of the piston protrudes from the threaded joint (7).
- 20. Remove installation tool from piston (4).
- 21. Slide the top of the piston (4) into the T-slot (2) on the slider assembly (3).
- 22. Screw lock nut (5) at the upper housing (6) until it touches.
- 23. Lubricate the threading of the upper housing (6) with machine grease.
  - Remove upper housing from the vice.
- 24. Screw upper housing (6) into the gear unit housing until the lock nut (5) touches and the connector for the connection hose faces the rear.
- 25. Tighten lock nut (5) with light hammer blows.
- 26. Insert guide ring (11) into the lower housing (Fig. 13, Item 10) and screw lower housing into upper housing and tighten.
- 27. Screw on and tighten connection hose.
- 28. Screw in inlet valve housing (Fig. 12, item 2), see Chapter 11.2, Item 13.
- 29. Screw on and tighten suction tube.
- 30. Fasten return hose with clamp at suction tube.
- 31. Install front cover.



## 11. Appendix

## 11.1 Selection of tip

To achieve faultless and rational working, the selection of the tip is of the greatest importance. In many cases the correct tip can only be determined by means of a spraying test.

## Some rules for this:

The spray jet must be even.

The following principle is valid:

If streaks appear in the spray jet the spraying pressure is either too low or the viscosity of the coating material to high.

Remedy: Increase pressure or dilute coating material. Each pump conveys a certain quantity in proportion to the size of the tip:

large tip 😑	low pressure
small tip =	high pressure

There is a large range of tips with various spraying angles.

## 11.2 Servicing and cleaning of Airless hard-metal tips

## Standard tips

If a different tip type has been fitted, then clean it according to manufacturer's instructions.

The tip has a bore processed with the greatest precision. Careful handling is necessary to achieve long durability. Do not forget the fact that the hard-metal insert is brittle! Never throw the tip or handle with sharp metal objects.

## The following points must be observed to keep the tip clean and ready for use:

- 1. Turn the relief valve handle fully counterclockwise ( $\bigcirc$  Circulation).
- 2. Switch off the gasoline engine.
- 3. Dismount the tip from the spray gun.
- 4. Place tip in an appropriate cleaning agent until all coating material residue is dissolved.
- 5. If there is pressure air, blow out tip.
- 6. Remove any residue by means of a sharp wooden rod (toothpick).
- 7. Check the tip with the help of a magnifying glass and, if necessary, repeat points 4 to 6.

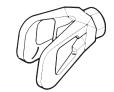
## 11.3 Spray gun accessories



Flat jet adjusting tip up to 250 bar (25 MPa

Tip marking	Bore mm	Spray width at about 30 cm removal of spray object Pressure 100 bar (10 MPa)	Use	Flat jet adjusting tip Order No.
15	0.13 - 0.46	5 - 35 cm	Paints	0999 057
20	0.18 - 0.48	5 - 50 cm	Paints, fillers	0999 053
28	0.28 - 0.66	8 - 55 cm	Paints, dispersions	0999 054
41	0.43 - 0.88	10 - 60 cm	Rust protection paints - dispersions	0999 055
49	0.53 - 1.37	10 - 40 cm	Large-area coats	0999 056

**Contact protection** for the flat jet adjustment tip



Order No. **0097 294** 

Tip extension with slewable knee joint (without tip)



 Length:
 100 cm
 Order no.
 0096 015

 Length:
 200 cm
 Order no.
 0096 016

 Length:
 300 cm
 Order no.
 0096 017

## **Tip extension**

15 cm, F-thread, Order no. **0556 051** 30 cm, F-thread, Order no. **0556 052** 45 cm, F-thread, Order no. **0556 053** 60 cm, F-thread, Order no. **0556 054** 



15 cm, G-thread, Order no. **0556 074** 30 cm, G-thread, Order no. **0556 075** 45 cm, G-thread, Order no. **0556 076** 60 cm, G-thread, Order no. **0556 077** 



## 12.4 Airless tip table



Wagner TradeTip 3 tip up to 270 bar (27 MPa)



without tip F thread (11/16 - 16 UN) for Wagner spray guns **Order no. 0289391**  without tip G thread (7/8 - 14 UN) for Graco/Titan spray guns **Order no. 0289390** 



# All of the tips in the table below are supplied together with the appropriate gun filter.

Application	Tip marking	Spray angle	Bore inch / mm	Spraying width mm 1)	Gun filter	Order no.
Water-thinnable and solvent-based paints and varnishes, oils, separat- ing agents	107 207 307 407 109 209 309 409 509 609	10° 20° 30° 40° 10° 20° 30° 40° 50° 60°	0.007 / 0.18 0.007 / 0.18 0.007 / 0.18 0.007 / 0.18 0.009 / 0.23 0.009 / 0.23 0.009 / 0.23 0.009 / 0.23 0.009 / 0.23	100 120 150 190 100 120 150 150 190 225 270	red red red red red red red red red red	0553107 0553207 0553307 0553407 0553109 0553209 0553209 0553409 0553509 0553509
Synthetic-resin paints PVC paints	111 211 311 411 511 611	10° 20° 30° 40° 50° 60°	0.011 / 0.28 0.011 / 0.28 0.011 / 0.28 0.011 / 0.28 0.011 / 0.28 0.011 / 0.28 0.011 / 0.28	100 120 150 190 225 270	red red red red red red	0553111 0553211 0553311 0553411 0553511 0553611
Paints, primers Fillers	113 213 313 413 513 613 813	10° 20° 30° 40° 50° 60° 80°	0.013 / 0.33 0.013 / 0.33 0.013 / 0.33 0.013 / 0.33 0.013 / 0.33 0.013 / 0.33 0.013 / 0.33	100 120 150 190 225 270 330	red red red red red red red	0553113 0553213 0553313 0553413 0553513 0553613 0553813
Fillers Rust protection paints	115 215 315 415 515 615 715 815	10° 20° 30° 40° 50° 60° 70° 80°	0.015 / 0.38 0.015 / 0.38 0.015 / 0.38 0.015 / 0.38 0.015 / 0.38 0.015 / 0.38 0.015 / 0.38	100 120 150 190 225 270 300 330	yellow yellow yellow yellow yellow yellow yellow yellow	0553115 0553215 0553315 0553415 0553515 0553615 0553715 0553815
Rust protection paints Latex paints Dispersions	117 217 317 417 517 617 717 817	10° 20° 30° 40° 50° 60° 70° 80°	0.017 / 0.43 0.017 / 0.43	100 120 150 225 270 300 330	yellow yellow yellow yellow yellow yellow yellow yellow	0553117 0553217 0553317 0553417 0553517 0553617 0553617 0553717 0553817
Rust protection paints Latex paints Dispersions	219 319 419 519 619 719 819 919	20° 30° 40° 50° 60° 70° 80° 90°	0.019 / 0.48 0.019 / 0.48	120 150 190 225 270 300 330 385	white white white white white white white white	0553219 0553319 0553419 0553519 0553619 0553719 0553719 0553819 0553919
Flame retardant	221 321 421 521 621 721 821	20° 30° 40° 50° 60° 70° 80°	0.021 / 0.53 0.021 / 0.53	120 150 190 225 270 300 330	white white white white white white white	0553221 0553321 0553421 0553521 0553621 0553721 0553821

1)Spray width at about 30 cm to the object and 100 bar (10 MPa) pressure with synthetic-resin paint 20 DIN seconds.

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Application	Tip marking	Spray angle	Bore inch / mm	Spraying width mm 1)	Gun filter	Order no.
Roof coatings	223 323 423 523 623 723 823	20° 30° 40° 50° 60° 70° 80°	0.023 / 0.58 0.023 / 0.58 0.023 / 0.58 0.023 / 0.58 0.023 / 0.58 0.023 / 0.58 0.023 / 0.58	120 150 190 225 270 300 330	white white white white white white white	0553223 0553323 0553423 0553523 0553623 0553723 0553823
Thick-film materials, Corrosion protection Spray filler	225 325 425 525 625 725 825 227 327 427 527 627 827 627 827 229 329 429 529 629 231 331 431 531 631 731 831 233 333 433 533 633 235 335 535 635 735 639	20° 30° 40° 50° 60° 20° 30° 40° 50° 60° 80° 20° 30° 40° 50° 60° 20° 30° 40° 50° 60° 20° 30° 40° 50° 60° 20° 30° 40° 50° 60° 20° 30° 40° 50° 60° 70° 80° 20° 30° 40° 50° 60° 70° 80° 20° 30° 40° 50° 60° 50° 50° 60° 50° 60° 50° 60° 50° 50° 60° 50° 50° 50° 50° 50° 60° 50° 50° 50° 50° 50° 50° 50° 50° 50° 5	$\begin{array}{c} 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.64 \\ 0.025 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.027 / 0.69 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.029 / 0.75 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.031 / 0.79 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.035 / 0.90 \\ 0.039 / 0.99 \\$	120         150         190         225         270         300         330         120         150         190         225         270         330         120         150         190         225         270         330         120         150         190         225         270         300         330         120         150         190         225         270         300         330         120         150         190         225         270         300         300         120         150         190         225         270         300         190         225         270         300         190         225         270         3	white white	0553225 055325 055325 055325 0553725 0553725 0553227 0553227 0553227 0553227 0553227 0553227 055327 055327 055327 055329 055329 055329 055329 055329 055329 0553231 0553331 0553331 0553331 0553331 0553331 0553331 0553333 0553235 0553333 0553533 0553335
Heavy duty applications	243 443 543 643 445 545 645 451 551 651 252 455 555 655 261 461 561 661 263 461 561 661 263 463 565 665 267 467	$\begin{array}{c} 20^{\circ} \\ 40^{\circ} \\ 50^{\circ} \\ 60^{\circ} \\ 40^{\circ} \\ 50^{\circ} \\ 60^{\circ} \\ 20^{\circ} \\ 20^{\circ} \\ 20^{\circ} \\ 20^{\circ} \\ 20^{\circ} \\ 20^{\circ$	$\begin{array}{c} 0.043 \ / \ 1.10 \\ 0.043 \ / \ 1.10 \\ 0.043 \ / \ 1.10 \\ 0.043 \ / \ 1.10 \\ 0.045 \ / \ 1.14 \\ 0.045 \ / \ 1.14 \\ 0.045 \ / \ 1.14 \\ 0.045 \ / \ 1.14 \\ 0.045 \ / \ 1.14 \\ 0.051 \ / \ 1.30 \\ 0.051 \ / \ 1.30 \\ 0.051 \ / \ 1.30 \\ 0.055 \ / \ 1.40 \\ 0.055 \ / \ 1.40 \\ 0.055 \ / \ 1.40 \\ 0.055 \ / \ 1.40 \\ 0.065 \ / \ 1.55 \\ 0.061 \ / \ 1.55 \\ 0.061 \ / \ 1.55 \\ 0.061 \ / \ 1.55 \\ 0.061 \ / \ 1.55 \\ 0.063 \ / \ 1.60 \\ 0.065 \ / \ 1.65 \\ 0.065 \ / \ 1.65 \\ 0.067 \ / \ 1.70 \\ 0.067 \ / \ 1.70 \\ 0.067 \ / \ 1.70 \\ \end{array}$	120 190 225 270 190 225 270 190 225 270 120 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190 225 270 190	green green	0553243 0553443 0553543 0553545 0553545 0553545 0553551 0553551 0553252 0553252 0553255 0553255 0553261 0553261 0553261 0553261 0553261 0553263 0553263 0553263 0553263 0553263 0553265 0553265 0553267 0553267

1)Spray width at about 30 cm to the object and 100 bar (10 MPa) pressure with synthetic-resin paint 20 DIN seconds.

## Appendix

## 12.5 Pump-Runner

## (Order No. 2306987)

Universal accessories for cleaning, clean transportation and preservation of the pump unit.

## Features:

- Simpler cleaning the cleaning liquid circulates constantly through the pump making thorough cleaning of the interior
- No cleaning necessary during work stoppage or change of location because the paint in the pump cannot dry out or leak
- Better protection
- Simple assembly

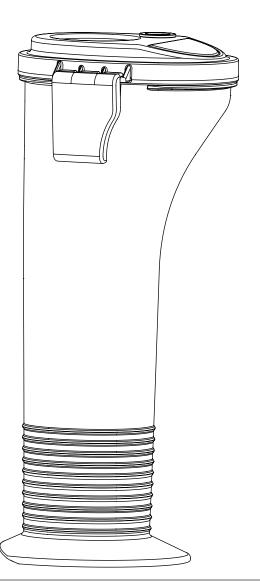
## Suitable for the following models:

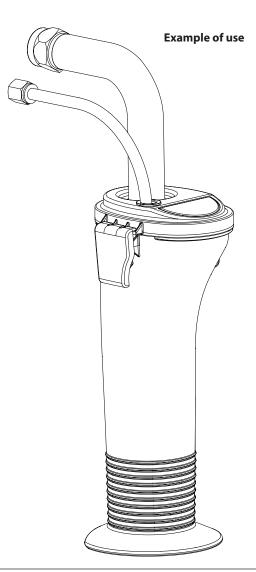
Diaphragm Pumps		Double-stroke piston pumps
SF 21	Finish 270/370	PS 24 PS 3.25
SF 23	Nespray Deco	PS 26 PS 3.29
SF 27	Nespray 31	PS 30 PS 3.31
SF 31		PS 34 PS 3.34
SF 7000		

(GB)



## Order this at the same time: EasyClean, cleaning and preservation agent (118ml) Order no. 0508 620.





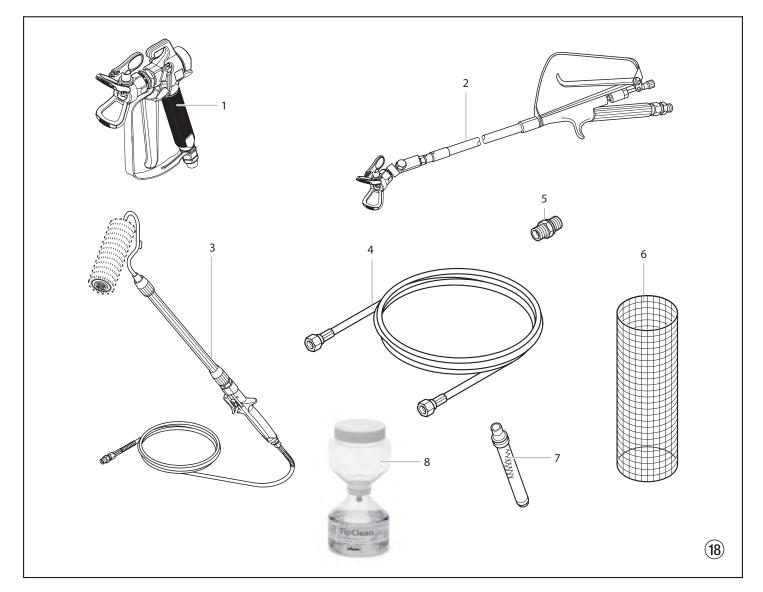
- A J. Wagner Ges.m.b.H. Ottogasse 2/20 2333 Leopoldsdorf Österreich Tel. +43/ 2235 / 44 158 Telefax +43/ 2235 / 44 163 office@wagner-group.at
- B WSB Finishing Equipment Veilinglaan 56-58 1861 Wolvertem Belgium Tel. +32/2/269 46 75 Telefax +32/2/269 78 45 info@wagner-wsb.nl
- CH Wagner International AG Industriestrasse 22 9450 Altstätten Schweiz Tel. +41/71 / 7 57 22 11 Telefax +41/71 / 7 57 22 22 wagner@wagner-group.ch
- J. Wagner GmbH Otto-Lilienthal-Straße 18 D-88677 Markdorf Postfach 11 20 Deutschland Tel. +49 / 75 44 / 505-1664 Telefax +49 / 75 44 / 505-1155 wagner@wagner-group.com www.wagnergroup.com

- DK Wagner Spraytech Scandinavia A/S Helgeshøj Allé 28 2630 Taastrup Denmark Tel. +45/43/ 27 18 18 Telefax +45/43/ 43 05 28 wagner@wagner-group.dk
- E Wagner Spraytech Iberica S.A. P.O. Box 132, Crta. N-340 08750 Molins de Rey Barcelona / Espania Tel. +34/93/6800028 Telefax +34/93/66800555 info@wagnerspain.com
- Wagner France
   12 Avenue des Tropiques
   Z.A. de Courtaboeuf,
   91978 Les Ulis Cedex
   France
   Tel. 0 825 011 111
   Telefax +33 (0) 69 81 72 57
   division.batiment@wagner-france.fr
- CZ Wagner, spol. s r.o. Nedasovská str. 345 155 21 Praha 5 -Zlicín Czechia Tel. +42/ 2 / 579 50 412 Telefax +42/ 2 / 579 51 052 info@wagner.cz

- **GB** Wagner Spraytech (UK) Limited The Coach House 2 Main Road Middleton Cheney OX17 2ND Great Britain UK-Helpline 0844 335 0517 5 p per minute (landline)
- I Wagner Colora Srl Via Italia 34 20060 Gessate - MI Italia Tel. +39 02.9592920.1 Telefax +39 02.95780187 info@wagnercolora.com
- NL WSB Finishing Equipment BV De Heldinnenlaan 200 3543 MB Utrecht Netherlands Tel. +31/30/241 41 55 Telefax +31/30/241 17 87 info@wagner-wsb.nl
- S Wagner Spraytech Scandinavia A/S Helgeshøj Allé 28 2630 Taastrup Denmark Tel. +45/43/ 21 18 18 Telefax +45/43/ 43 05 28 wagner@wagner-group.dk

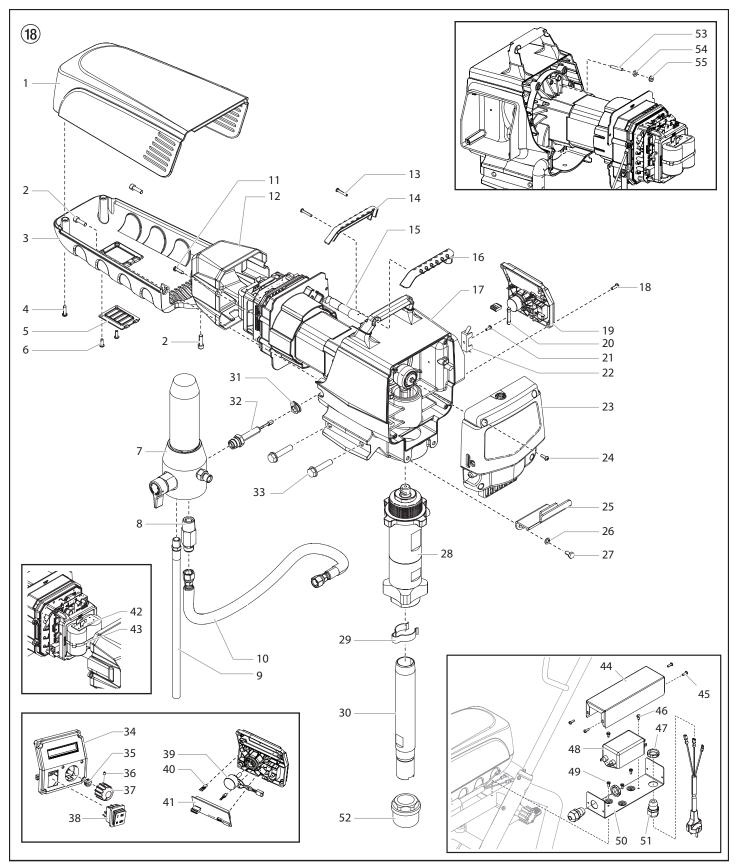
## www.wagner-group.com

ProSpray 3.29 / 3.31



ltem	Part No.	Description	
1	0296 388	Spray gun AG 08, F-thread	
	0296 386	Spray gun AG 08, G-thread	
	0502 166	Spray gun AG 14, F-thread	
	0502 119	Spray gun AG 14, G-thread	
2	0296 441	Pole gun 120 cm, G-thread 7/8"	
	0296 443	Pole gun 120 cm, F-thread 11/16"	
	0296 442	Pole gun 200 cm, G-thread 7/8"	
	0296 444	Pole gun 200 cm, F-thread 11/16"	
3	0345 010	In-line roller IR-100	
4	9984 573	High-pressure hose DN 4 mm, 7.5 m with stainless steel nipple, 1/4"	
	9984 574	High-pressure hose DN 6 mm, 15 m for dispersion, 1/4"	
	9984 575	High-pressure hose DN 6 mm, 30 m for dispersion, 1/4"	
5	0034 038	Double socket for coupling high-pressure hoses (1/4" x 1/4")	
6	0034 950	Metex-Reuse Reuse for pre-filtering of coating material in vessel. Place suction pipe in the reuse.	
	0034 952	Sieve package (5 pcs) for paint	
	0034 951	Sieve package (5 pcs) for dispersion	
7	0034 383	Gun filter, red, 1 piece; 180 mesh extra fine	
	0097 022	Gun filter, red, 10 pieces; 180 mesh extra fine	
	0043 235	Gun filter, yellow, 1 piece; 100 mesh fine	
	0097 023	Gun filter, yellow, 10 pieces; 100 mesh fine	
	0034 377	Gun filter, white, 1 piece; 50 mesh medium	
	0097 024	Gun filter, white, 10 pieces; 50 mesh medium	
	0089 323	Gun filter, green, 1 piece; 30 mesh coarse	
	0097 025	Gun filter, green, 10 pieces; 30 mesh coarse	
8	0097 108	TipClean Cleaning Set for easy cleaning and conservation of nozzles	
	0508 619	EasyGlide, special oil (118ml)	
	0508 620	EasyClean, cleaning and conservation agent (118 ml)	

ProSpray 3.29 / 3.31 Main Assembly



ltem	Part No.	Description
1	0290 270	Motor shroud
2	0508 559	Screw (2)
3	0290 269	Belly pan
4	9802 266	Screw (2)
5	0290 228	Door
6	0509 218	Screw (2)
7	0552 240A	Filter assembly
8	805-549	Fitting
9	0508 293	Retun tube
10	0507 785	Hose
11	9802 266	Screw (2)
12	0290 225	Electronic cover
13	9805 317	Screw (2)
14	0290 212	Handle cover, back
15	0558 493	Power cord jumper*
16	0290 213	Handle cover, front
17		Drive assembly
18	0509 218	Screw (4)
19	0558 321A	Control panel assembly, complete (includes items 34-41)
20	0551 627	Fuse, 15A
21	9804 916	Screw
22	0522 210	Mounting plate
23	0290 279	Face plate / oiler assembly
24	0509 218	Screw (4)
25	0290 260	Pail hook
26	9821 503	Washer (2)
27	0290 271	Screw (2)
28	0290 238	Fluid section assembly
29	0507 783	Clip

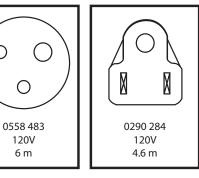
ltem	Part No.	Description
30	0507 782	Suction tube
31	0290 253	Grommit
32	0551 778	Transducer assembly
33	9805 348	Screw (4)
34	0290 252	Control panel cover with label
35	0507 749	Nut with seal
36	0290 202	Set screw
37	0290 218	Knob
38	9850 936	Switch
39	0508 579	Potentiometer
40	0522 007	LED assembly
41	0290 220	Digital Electronic Spray Control (DESC) display
42	0522 027	Capacitor assembly
43	0551 543	Tie wrap
44	0558 454	Bracket cover*
45	0509 218	Screw (4)*
46	9800 340	Screw (2)*
47	0551 980	Lock nut (2)*
48	0522 424	EMI filter*
49	9805 240	Screw (3)*
50	0558 453	Bracket*
51	0551 714	Cord grip (2)*
52	5006 536	Inlet filter
53	9805 403	Set screw
54	9810 103	Nut
55	0524 353	Nut
	0522 054	Arrestor (not shown, see schematic)
	0551 972	Surge protector (not shown, see schematic)
	0522022	Display wire assembly (not shown, see schematic)

\* UK only



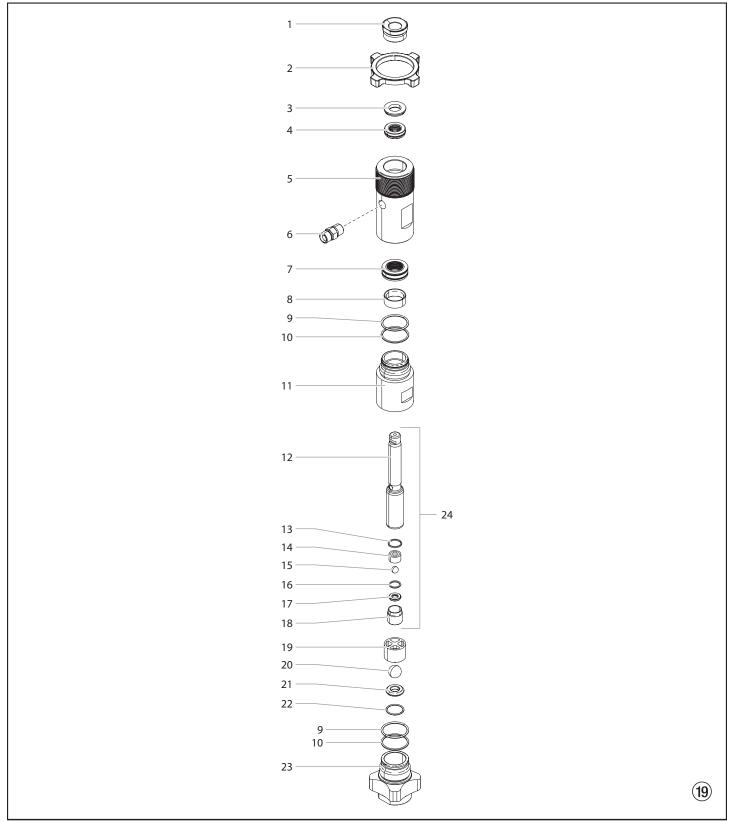
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## ProSpray 3.29 / 3.31

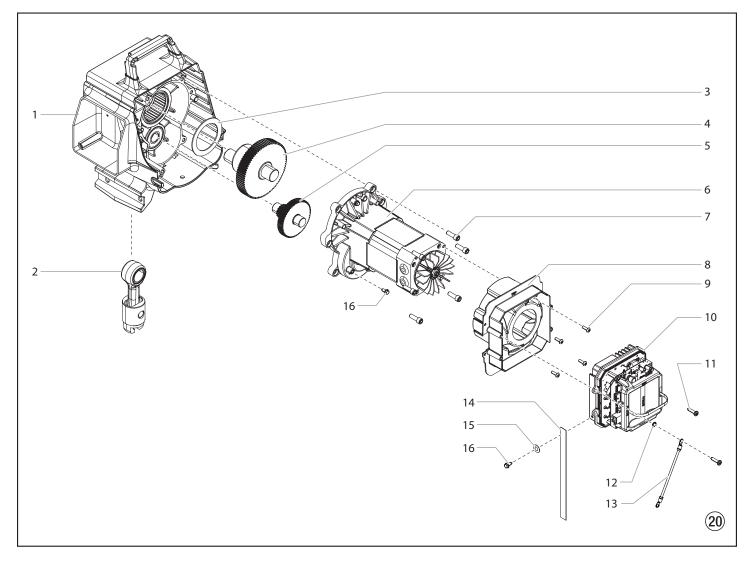
## Fluid section



ltem	Part No.	Description
1	0290 263	Retainer
2	0290 255	Jam nut
3	0290 276	Spacer
4		Upper packing
5	0290 249	Upper housing
6	0508 343	Fitting
7		Lower packing
8	0508 712	Guide ring
9	0507 730	O-ring (2)
10	0507 731	O-ring (2)
11	0290 250	Lower housing
12	0290 251	Piston rod
13	0507 734	Upper seal
14	0507 452	Upper ball guide
15	9841 502	Outlet valve ball
16	0507 454	Washer
17	0294 516	Outlet valve seat
18	0507 733	Outlet valve retainer
19	0507 729	Lower ball guide
20	51519	Inlet valve ball
21	00310	Inlet valve seat
22	0509 582	O-ring
23	0508 717	Inlet valve housing
24	0290 237	Piston assembly (includes items 12-18)
	0508 221	Repacking kit - 1 (includes items 3-4, 7-10, 13, 15, 16, 20 and 22)
	0558 729	Repacking kit - 1 (includes items 3-4 and 7)
[	0552 150	Lower packing insertion tool

## ProSpray 3.29 / 3.31

## **Drive Assembly**

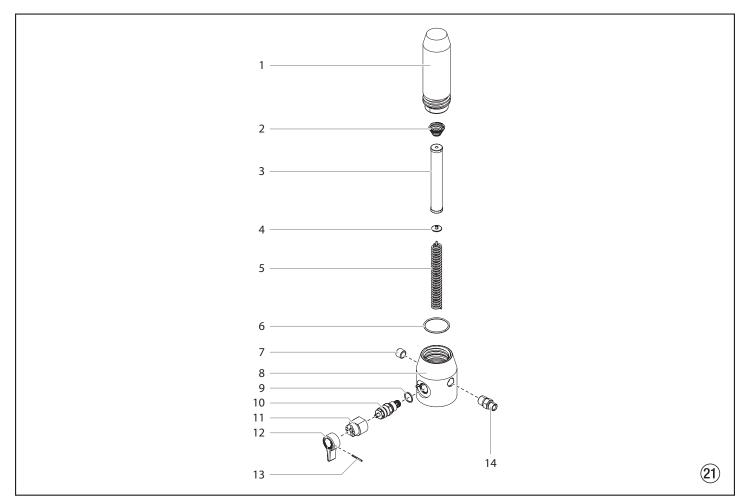


ltem	Part No.	Description
1	0558 323A	Housing assembly
2	0290 241	Slider assembly
3	0290 254	Thrust washer
4	0290 239	Gear/crankshaft assembly
5	0290 240	1st stage gear
6	0290 287	Motor assembly
7	0508 559	Screw (6)
8	0558 558	Baffle assembly
9	0509 218	Screw (4)
10	0558 541	Electronic control assembly (PS 3.29)
	0558 542	Electronic control assembly (PS 3.31)
11	9802 266	Screw (2)
12	9822 106	Washer
13	0522 040	Wire assembly
14	0558 559	Grounding strap*
15	9822 631	Washer*
16	9800 340	Ground screw (2)*

\* UK only

## ProSpray 3.29 / 3.31

## Filter assembly

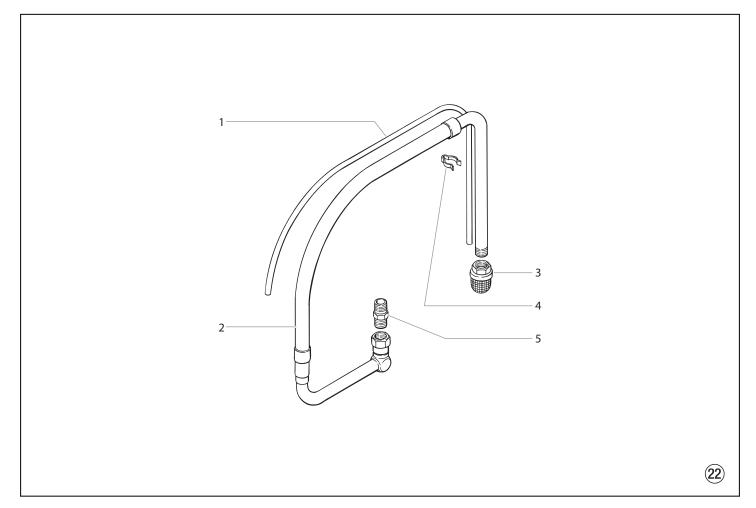


ltem	Part No.	Description
1	0524 918	Filter housing
2	14058	Conical spring
3	0508 748	Filter, 60 mesh (standard)
	0508 451	Filter, 30 mesh
	0508 452	Filter, 100 mesh
4	0508 603	Bearing ring
5	0508 749	Bearing spring
6	0551 951	O-ring
7	0507 739	Pipe plug

ltem	Part No.	Description
8	0290 264	Housing
9	0507 745	Gasket
10	0558 727	Bypass valve assembly (includes item 9)
11	0507 931	Cam base
12	0508 744	Relief valve knob
13	5006 543	Groove pin
14	0088 162	Fitting
	0507 254	Relief valve kit (includes items 9-13).

## ProSpray 3.29

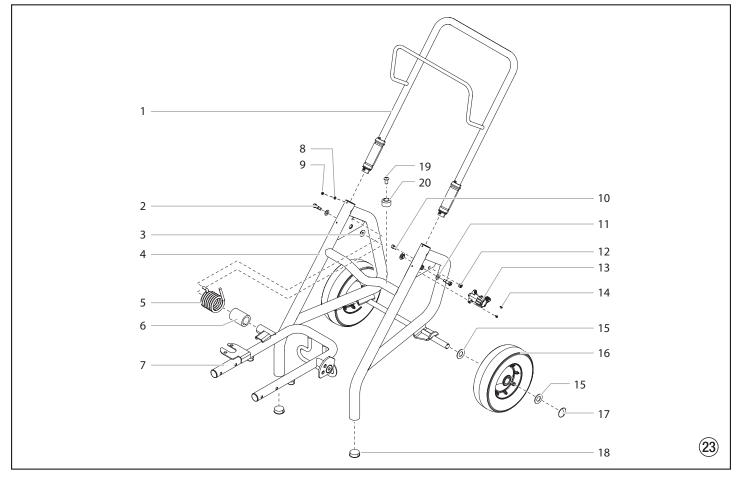
## Suction system for low boy cart



ltem	Part No.	Description
1	0507 964	Return hose
2	0507 965	Siphon tube
3	5006 536	Inlet screen
4	0507 783	Clamp
5	0507 967	Siphon tube adapter
		Tie wrap (not shown)

## ProSpray 3.29 / 3.31

## Upright cart assembly

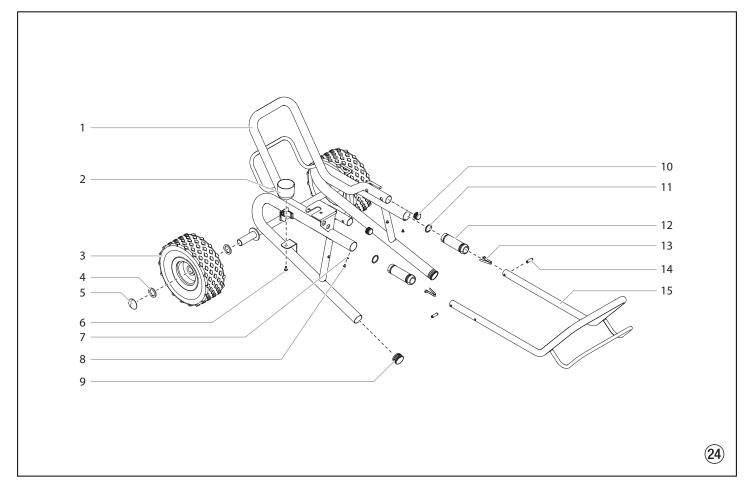


ltem	Part No.	Description
1	0290 207	Handle assembly (includes items 8-9)
2	9805 352	Screw (2)
3	0290 257	Bushing
4	0290 235	Cart weldment
5	9894 275	Spring
6	0290 294	Bushing
7	0290 244	Carriage assembly
8	0509 386	Washer (4)
9	0295 608	Screw (4)
10	0279 481	Screw

ltem	Part No.	Description
11	9820 305	Washer (2)
12	0555 319	Jam nut
13	0290 236	Cam assembly
14	9805 353	Screw (2)
15	0294 534	Spacer (4)
16	0278 373	Wheel (2)
17	9890 104	Axle cap (2)
18	9885 571	Plug (2)
19	54458	Screw (2)
20	13538	Pad (2)

## ProSpray 3.29

## Low boy cart assembly



ltem	Part No.	Description
1	0290 290	Cart
2	0508 381	Drip cup
3	0290 291	Wheel
4	0294 534	Wheel spacer
5	9890 104	Axle cap
6	9805 230	Drip cup screw
7	0509 386	Washer
8	0295 608	Screw
9	9885 571	Plug
10	0294 635	Plug
11	0295 609	Washer
12	0295 607	Handle sleeve
13	9841 504	Spring button
14	0295 610	Roll pin
15	0290 292	Handle assembly

## Important notes on product liability

As a result of an EC regulation being effective as from January 1, 1990, the manufacturer shall only be liable for his product if all parts come from him or are released by him, and if the devices are properly mounted and operated.

If the user applies outside accessories and spare parts, the manufacturer's liability can fully or partially be inapplicable; in extreme cases usage of the entire device can be prohibited by the competent authorities (employer's liability insurance association and factory inspectorate division).

Only the usage of original WAGNER accessories and spare parts guarantees that all safety regulations are observed.

## 3+2 years guarantee for professional finishing

Wagner professional guarantee (Status 01.02.2009)

#### 1. Scope of guarantee

All Wagner professional colour application devices (hereafter referred to as products) are carefully inspected, tested and are subject to strict checks under Wagner quality assurance. Wagner exclusively issues extended guarantees to commercial or professional users (hereafter referred to as "customer") who have purchased the product in an authorised specialist shop, and which relate to the products listed for that customer on the Internet under www. wagner-group.com/profi-guarantee.

The buyer's claim for liability for defects from the purchase agreement with the seller as well as statutory rights are not impaired by this guarantee.

We provide a guarantee in that we decide whether to replace or repair the product or individual parts, or take the device back and reimburse the purchase price. The costs for materials and working hours are our responsibility. Replaced products or parts become our property.

#### 2. Guarantee period and registration

The guarantee period amounts to 36 months. For industrial use or equal wear, such as shift operations in particular, or in the event of rentals it amounts to 12 months.

Systems driven by petrol or air are also guaranteed for a 12 month period. The guarantee period begins with the day of delivery by the authorised specialist shop. The date on the original purchase document is authoritative.

For all products bought in authorised specialist shops from 01.02.2009 the guarantee period is extended to 24 months providing the buyer of these devices registers in accordance with the following conditions within 4 weeks of the day of delivery by the authorised specialist shop.

Registration can be completed on the Internet under www.wagner-group. com/profi-guarantee. The guarantee certificate is valid as confirmation, as is the original purchase document that carries the date of the purchase. Registration is only possible if the buyer is in agreement with having the data being stored that is entered during registration.

When services are carried out under guarantee the guarantee period for the product is neither extended nor renewed.

Once the guarantee period has expired, claims made against the guarantee or from the guarantee can no longer be enforced.

#### 3. Handling

If defects can be seen in the materials, processing or performance of the device during the guarantee period, guarantee claims must be made immediately, or at the latest within a period of 2 weeks.

The authorised specialist shop that delivered the device is entitled to accept guarantee claims. Guarantee claims may also be made to the service centres named in our operating instructions. The product has to be sent without charge or presented together with the original purchase document that includes details of the purchase date and the name of the product. In order to claim for an extension to the guarantee, the guarantee certificate must be included.

The costs as well as the risk of loss or damage to the product in transit or by the centre that accepts the guarantee claims or who delivers the repaired product, are the responsibility of the customer.

#### 4. Exclusion of guarantee

Guarantee claims cannot be considered

- for parts that are subject to wear and tear due to use or other natural wear and tear, as well as defects in the product that are a result of natural wear and tear, or wear and tear due to use. This includes in particular cables, valves, packaging, jets, cylinders, pistons, meanscarrying housing components, filters, pipes, seals, rotors, stators, etc. Damage due to wear and tear that is caused in particular by sanded coating materials, such as dispersions, plaster, putty, adhesives, glazes, quartz foundation.
- in the event of errors in devices that are due to non-compliance with the operating instructions, unsuitable or unprofessional use, incorrect assembly and/or commissioning by the buyer or by a third party, or utilisation other than is intended, abnormal ambient conditions, unsuitable coating materials, unsuitable operating conditions, operation with the incorrect mains voltage supply/frequency, overoperation or defective servicing or care and/or cleaning.
- for errors in the device that have been caused by using accessory parts, additional components or spare parts that are not original Wagner parts.
- for products to which modifications or additions have been carried out.
- for products where the serial number has been removed or is illegible
- for products to which attempts at repairs have been carried out by unauthorised persons.
- for products with slight deviations from the target properties, which are negligible with regard to the value and usability of the device.
- for products that have been partially or fully taken apart.

#### 5. Additional regulations.

The above guarantees apply exclusively to products that have been bought by authorised specialist shops in the EU, CIS, Australia and are used within the reference country.

If the check shows that the case is not a guarantee case, repairs are carried out at the expense of the buyer.

The above regulations manage the legal relationship to us concludingly. Additional claims, in particular for damages and losses of any type, which occur as a result of the product or its use, are excluded from the product liability act except with regard to the area of application.

Claims for liability for defects to the specialist trader remain unaffected.

German law applies to this guarantee. The contractual language is German. In the event that the meaning of the German and a foreign text of this guarantee deviate from one another, the meaning of the German text has priority.

J. Wagner GmbH Division Professional Finishing Otto Lilienthal Strasse 18 88677 Markdorf Federal Republic of Germany

#### Note on disposal:

In observance of the European Directive 2002/96/ EC on waste electrical and electronic equipment and implementation in accordance with national law, this product is not to be disposed of together with household waste material but must be recycled in an environmentally friendly way!



Wagner or one of our dealers will take back your used Wagner waste electrical or electronic equipment and will dispose of it for you in an environmentally friendly way. Please ask your local Wagner service centre or dealer for details or contact us direct.